

From: [Blaine, Marjorie E SPL](#)
To: [Goldmann, Elizabeth](#)
Subject: RE: Indirect loss of potential waters of the U.S. at Rosemont (UNCLASSIFIED)
Date: Wednesday, January 15, 2014 11:35:06 AM

Classification: UNCLASSIFIED
Caveats: NONE

Thank you. When I meet with them today, I'll request an aerial for us both. I'll have them send it directly to you.

Marjorie
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-----Original Message-----

From: Goldmann, Elizabeth [<mailto:Goldmann.Elizabeth@epa.gov>]
Sent: Wednesday, January 15, 2014 12:27 PM
To: Blaine, Marjorie E SPL
Subject: [EXTERNAL] FW: Indirect loss of potential waters of the U.S. at Rosemont

Hi Marjorie

Here is the email from Brian Lindenlaub regarding the calculation of indirect impacts.

-Elizabeth

From: Brian Lindenlaub [<mailto:blindenlaub@westlandresources.com>]
Sent: Friday, August 16, 2013 10:50 AM
To: Goldmann, Elizabeth
Cc: Blaine, Marjorie E SPL; 'Kathy Arnold'; Jamie Sturgess; 'ANDERSON, ROBERT'; Greg Williams
Subject: Indirect loss of potential waters of the U.S. at Rosemont

Elizabeth,

Per the request of Marjorie Blaine (Corps), I am providing the attached information describing how indirect impacts to potential waters of the U.S. resulting from the Rosemont Project were calculated.

Per Corps guidance, the estimate of indirect loss of potential waters of the U.S. was initially determined based on the area of Barrel Canyon, within the ordinary high water mark (OHWM), between the toe of the perimeter berm and the confluence of Barrel and McCleary canyons. This area is approximately 2.8 acres.

Approximately three weeks ago, Ms Blaine determined that additional indirect impacts to potential waters of the U.S. should be calculated based on the 2012 modeled reduction in surface water flow volume resulting from the Rosemont Project. WestLand has estimated these additional impacts based on the "Barrel Alternative" which has been identified as both the LEDPA by the Corps and the preferred alternative by the Coronado National Forest. Once the approach described here is approved by the Corps, these impacts may be readily extrapolated for the other alternatives.

The Preliminary Administrative Final Environmental Impact Statement (PA FEIS) identifies several discrete downstream segments of Barrel and Davidson canyons which will be impacted by the Rosemont Project. In order, from upstream to downstream, these reach segments are referred to as follows (see attached Figure 1):

- Barrel Canyon Reach 1
- Barrel Canyon Reach 2
- Davidson Canyon Reach 2
- Davidson Canyon Reach 3
- Davidson Canyon Reach 4

For our analysis, Barrel Canyon Reach 1 was further divided into Reaches 1A and 1B in order to reflect the short reach of Barrel Canyon down to the confluence with McCleary Canyon.

The post-mining estimated reduction in average annual flow volume at the SR 83 stream gage (at the point that separates Barrel Canyon Reaches 1 and 2) is approximately 17%. During mining operations, the reduction in average annual flow volume peaks at approximately 36%, then reduces steadily during concurrent reclamation to the final post-mining reduction of 17%. The reduction in surface flows will result in a commensurate reduction in sediment loads, though sediment concentration is anticipated to remain largely unchanged. An evaluation by Golder Associates, Inc. (2012), attached, concluded that the development of the Rosemont Project "will have no significant impact on the geomorphology of either Barrel Creek or Davidson Canyon" due to 1) the sediment-transport limited nature of the two streams, 2) the presence of two downstream grade control structures in Barrel Canyon, and 3) the limited nature of the convective storms within the watershed.

In order to estimate the indirect "loss" of potential waters of the U.S. downstream of the Rosemont Project, the OHWM of Barrel and Davidson canyons was mapped via aerial photo review to the confluence of Davidson Canyon and Cienega Creek. Both drainages are generally confined and the aerial photo OHWM mapping effort is anticipated to have a relatively high degree of accuracy. The area of potential waters of the U.S. within each stream segment was then calculated from the OHWM mapping. Because the loss of function within each of the considered stream reaches is considerably less than 100%, it was determined that the "loss of potential waters of the U.S."

(measured in acres) would be some fraction of the total area of each stream segment. The reduction in average annual flow volume provides a reasonable surrogate for the fractional loss of function. Therefore, the "loss of potential waters of the U.S." was calculated by multiplying the percent reduction in average annual flow volume for a given stream segment by the total acreage of potential waters of the U.S. in each stream segment.

The attached table provides the estimated "loss of potential waters of the U.S." for both the post-mining period as well as the construction and operations period (an estimated 25-30 years). During operations, an estimated 28.4 acres of potential waters of the U.S will be "lost", while post-mining the estimated "loss" is 15.3 acres.

As always, if you have any questions or require an additional information please do not hesitate to contact me.

Regards,

Brian Lindenlaub | Principal

WestLand Resources, Inc.

4001 E Paradise Falls Drive | Tucson, AZ 85712

Office: (520) 206-9585 | Fax: (520) 206-9518

Classification: UNCLASSIFIED

Caveats: NONE

From: [Blaine, Marjorie E SPL](#)
To: [Kathy Arnold \(kathy.arnold@hudsonbayminerals.com\)](#)
Cc: [Castanon, David J SPL](#); [Diebolt, Sallie SPL](#); [ANDERSON, ROBERT](#); [Linda.wrong@hudsonbayminerals.com](#); [Upchurch, Jim -FS](#); [Goldmann, Elizabeth](#)
Subject: RE: Rosemont mitigation submittal extension [FC-Email.FID3386065] (UNCLASSIFIED)
Date: Thursday, August 14, 2014 3:48:22 PM

Classification: UNCLASSIFIED

Caveats: NONE

Kathy:

I'd just like to summarize our conversation yesterday and clarify some misconceptions RM seems to have.

In the meeting of June 11 between RM and the Corps, EPA, USFS, FWS, and BLM, the agencies explained how all of our processes are intertwined and how delays in one process can result in delays in completion of the EIS process.

The Corps indicated we are not requesting or requiring any additional mitigation plan. However, we requested, since it was RM's intent to submit additional mitigation, that it be done within 30 days of the meeting (July 11) so we did not hold up the re-initiation of the Sec 7 consultation. RM stated it would have the "enhanced" mitigation plan by July 31. All agencies concurred that submittal date would not cause a delay with the Sec 7 process.

Subsequently, in my meeting with you, Linda, and Hudsonbay consultants on July 23, Linda requested a two week extension to provide the enhanced plan as Hudsonbay had only just begun familiarizing itself with all of the aspects of RM's operations. You explained the two weeks would provide Hudsonbay "hole pokers" with additional time to look at the "enhanced" mitigation plan. I reiterated that the Corps is not requesting or requiring additional information but that I had spoken with the USFS and FWS regarding schedules and that it would not impact the schedule for re-initiation if you all needed more time. We looked at the calendar together and I suggested Aug 14 based on a Regulatory Division conference beginning Aug 18. As I explained, if I had the plan at that time, I could take it to the conference with me and our team could look at it together. Both you and Linda seemed to receive this idea as a good proposal. At no time did I tell you it was a deadline or a hard/fast timeframe.

As I explained to you on the phone yesterday, because we have an existing mitigation plan submitted in April and all we need to proceed to a decision, we have not set any deadlines on RM. Also as I've explained before, we do not want to be the agency that holds up the process and so we would like to be sure the USFS is able to move forward with the re-initiation of Sec 7 consultation when they have the additional studies completed and have finished the supplemental BA. The Corps needs approximately one month to review an enhanced mitigation plan and the USFS needs adequate time to incorporate a mitigation plan into the supplemental BA. When Jim Upchurch tells me a date he needs a mitigation plan to send the supplemental BA to FWS and re-initiate consultation, I will send him whatever plan we have at that time.

As an example, if I receive your enhanced plan by September 1, we will need approximately one month to review it and provide it to the USFS. I'm assuming they will need 2-3 weeks to evaluate it and include it in the supplemental BA. That puts us into late October which is, as I understand it, the approximate time the USFS intends to be ready to re-initiate the consultation.

Thanks very much, Kathy. Please let me know if you have questions.

Marjorie

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-----Original Message-----

From: ANDERSON, ROBERT [<mailto:RANDERSO@FCLAW.com>]

Sent: Wednesday, August 13, 2014 9:39 AM

To: Diebolt, Sallie SPL

Cc: Castanon, David J SPL; Blaine, Marjorie E SPL; Kathy Arnold (kathy.arnold@hudsonbayminerals.com); Brian S. Lindenlaub

Subject: [EXTERNAL] Rosemont mitigation submittal extension [FC-Email.FID3386065]

Sallie: This follows up on our discussion yesterday in which you indicated that Rosemont has at least until September 1st to submit the supplemental mitigation plan Rosemont is developing and which is described in Patrick Merrin's letter to Colonel Colloton of July 31. We have been operating under an August 14 deadline and have a pending request to extend that deadline as per Mr. Merrin's letter. We would appreciate a return e-mail confirming the extension. Thank you and please contact us if you have any questions.

Robert D. Anderson <<mailto:randerso@fclaw.com>> | Fennemore Craig, P.C. <<http://www.fclaw.com/>>

2394 E. Camelback Rd, Ste 600 | Phoenix, AZ 85016

Tel: 602.916.5455 | Fax: 602.916.5655 | (b) (6)

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Classification: UNCLASSIFIED

Caveats: NONE

From: [Blaine, Marjorie E SPL](#)
To: [Goldmann, Elizabeth](#)
Subject: RE: [EXTERNAL] (UNCLASSIFIED)
Date: Wednesday, January 15, 2014 10:39:14 AM
Attachments: [FINAL Rosemont BO.pdf](#)

Classification: UNCLASSIFIED

Caveats: NONE

Sorry.....We got cut off and it seems like it was on my end. Now I can't dial back out.

Attached is the final BO. (b)(5) - deliberative

SCR is addressed starting on page 48.

Marjorie

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-----Original Message-----

From: Goldmann, Elizabeth [<mailto:Goldmann.Elizabeth@epa.gov>]

Sent: Monday, January 06, 2014 12:46 PM

To: Blaine, Marjorie E SPL

Subject: [EXTERNAL]

Hi Marjorie

I am just following up on our last discussion regarding Sonoita Creek Ranch. I understand Westlands is developing another mitigation proposal. Have they prepared a draft for review? (b)(5) Deliberative

(b)(5) Deliberative

Thanks, Elizabeth

Classification: UNCLASSIFIED
Caveats: NONE

From: [Blaine, Marjorie E SPL](#)
To: [Goldmann, Elizabeth](#); [Castanon, David J SPL](#)
Cc: [Diamond, Jane](#); [Brush, Jason](#)
Subject: RE: [EXTERNAL] (UNCLASSIFIED)
Date: Wednesday, January 15, 2014 2:06:36 PM
Attachments: [Tohono Oodham Scoping Letter 011414 TM \(2\).docx](#) Attachment withheld in full - (b)(5) deliberative

Classification: UNCLASSIFIED

Caveats: NONE

Elizabeth

(b)(5) - deliberative



Marjorie

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-----Original Message-----

From: Goldmann, Elizabeth [<mailto:Goldmann.Elizabeth@epa.gov>]

Sent: Wednesday, January 15, 2014 1:00 PM

To: Castanon, David J SPL; Blaine, Marjorie E SPL

Cc: Diamond, Jane; Brush, Jason

Subject: [EXTERNAL]

Hi Dave and Marjorie

I have attached a draft copy of the Tohono O'odham scoping letter regarding the meeting scheduled for January 28th

(b)(5) Deliberative



Thanks, Elizabeth

Classification: UNCLASSIFIED

Caveats: NONE